

CLAIMS

1. A particle blast apparatus, comprising:
 - (a) at least one hopper support carried by said particle blast apparatus;
 - (b) a hopper for receiving particles, said hopper being carried by and mechanically isolated from said at least one hopper support.
2. The particle blast apparatus of claim 1, including at least one mechanical isolator disposed between said hopper and said at least one hopper support.
3. The particle blast apparatus of claim 2, wherein said at least one mechanical isolator is under compression.
4. The particle blast apparatus of claim 1, wherein said hopper includes an exit, and said particle feeder include a feeder, said feeder having an inlet for receiving said particles, said hopper being moveable from a first position at which said exit is generally aligned with said inlet to a second position at which said exit is not aligned with said inlet.
5. The particle blast apparatus of claim 4, further comprising a slide assembly, said at least one hopper support being connected to said slide assembly.
6. The particle blast apparatus of claim 1, comprising an impulse assembly configured to deliver energy to said hopper.
7. The particle blast apparatus of claim 6, wherein said impulse assembly is carried by said hopper.
8. The particle blast apparatus of claim 6, wherein said impulse assembly comprises at least one member, which is reciprocated between first and second positions.
9. The particle blast apparatus of any of claims 1 wherein said particles are cryogenic particles.

10. A particle blast apparatus, comprising:

- (a) a hopper for receiving particles, said hopper having a exit;
- (b) a feeder, said feeder having an inlet for receiving said particles;

5 (c) said hopper being moveable from a first position at which said exit is generally aligned with said inlet to a second position at which said exit is not aligned with said inlet.

11. The particle blast apparatus of claim 11, further comprising a slide assembly which carries said hopper.

12. The particle blast apparatus of claim 11, wherein said hopper is rigidly connected to said slide assembly.

13. The particle blast apparatus of claim 11, wherein said hopper is mechanically isolated from said slide assembly.

14. The particle blast apparatus of claim 11, comprising at least one hopper support carried by said slide assembly, said hopper being carried by said at least one hopper support, and at least one mechanical isolator disposed between said hopper and said at least one hopper support.